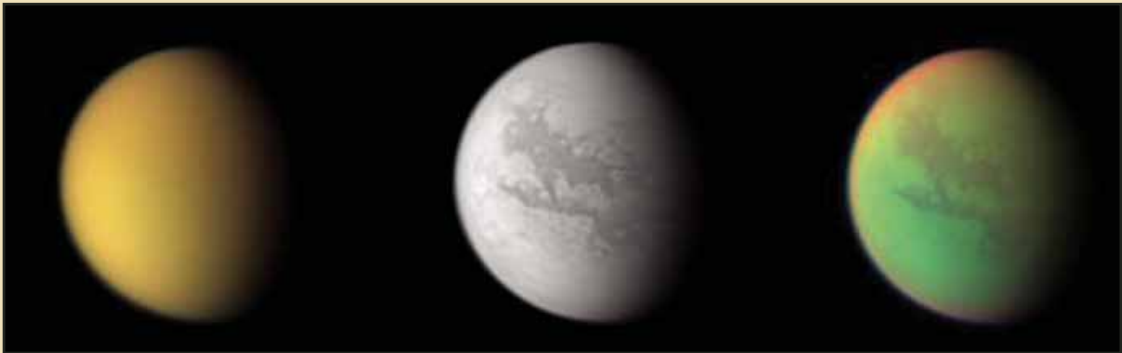




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Friday, May 13, 2005

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These three views of Titan from the Cassini spacecraft illustrate how different the same place can look in different wavelengths of light.

Titan's sky similar to Earth's

By Anne M. Stark
NEWSLINE STAFF WRITER

Observations of Titan's atmosphere offer a unique look at how Saturn's giant moon compares to Earth. Titan is the only moon in the solar system

with a substantial atmosphere. Like Earth, Titan's atmosphere is primarily composed of nitrogen, but unlike Earth, one of the most abundant constituents is methane (CH⁴). The Huygens probe will determine if the abun-

See **TITAN**, page 7

UC partners with Bechtel in preparation to compete for Los Alamos contract

The University of California and a Bechtel-led industrial team announced an historic agreement Wednesday to prepare for the Department of Energy competition to manage the Los Alamos National Laboratory. With a proven track record of excellence in science and technology, UC has 60 years of experience in leading the nation's nuclear weapons research and development programs. Bechtel National, joined by BWX Technologies Inc. and Washington Group International, brings a best-in-class business management

Kuckuck named LANL director

The University of California has appointed Robert Kuckuck, a veteran in national laboratory management, a former National Nuclear Security Administration (NNSA) official and a leading expert in nuclear

See **LANL**, page 8

Laboratory's Linda Rakow selected as new chief financial officer

Linda Rakow, a Laboratory employee for almost 20 years, has been selected as LLNL's new chief financial officer. The appointment was made by Laboratory Director Michael Anastasio on Monday and confirmed by the University of California and by the National Nuclear Security Administration. Rakow has been serving in the position in an acting capacity since July 2004. Her appointment is effective immediately.

In making his appointment, Anastasio said that Rakow is ideally suited for the role. "Linda brings a broad scope of experience to this position," he said. "Her expertise in business and finance, along with her knowledge of both the programmatic and operational areas of our Laboratory, will be very

beneficial to meet the challenges facing us, and take on Laboratory initiatives for the future. I am pleased Linda will be joining my senior management team." The chief financial officer is responsible for the leadership of the Lab's financial function — including budget development and implementation.

See **RAKOW** page 7

DDLs speaker to spotlight dark energy, supernovae

Will the universe last forever, or will it come to an end someday? Surprisingly, this apparently philosophical question can be addressed empirically. And Saul Perlmutter will do that when he presents "Supernovae, Dark Energy, and the Accelerating Universe" at 3:30 p.m. on Tuesday, May 17, as part of the Director's Distinguished Lecturer Series. Light from the cataclysmic explosions of distant stars — supernovae — provides natural mile markers across the vast expanses of space, markers that can be used to track the past expansion of the universe and extrapolate its fate. Using supernovae as such cosmological dis-

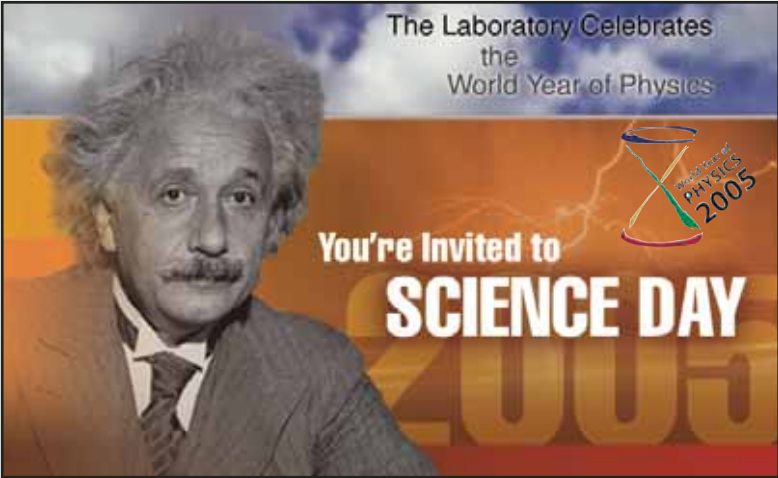
See **DDLs**, page 7

Physics takes center stage at Science Day

By Linda Lucchetti
NEWSLINE STAFF WRITER

A day showcasing exciting scientific and technical accomplishments in physics is planned for Science Day 2005 on May 23, part of the Laboratory's "World Year of Physics" celebration. Science Day will feature talks, posters and exhibits that link today's

See **SCIENCE DAY**, page 3



Asian American
heritage month
celebrated

— Page 2



Student contest
drops in to
Laboratory

— Page 2



Employee town hall meetings
— Page 4



LAB COMMUNITY NEWS

Weekly Calendar

Technical Meeting Calendar, page 4

Saturday
14

The Lab's "Science on Saturday" lecture series visits Merced County today. Wil van Breugel, research astronomer in LLNL's Institute of Geophysics and Planetary Physics, will present "From the Big Bang to California: Observation of the Universe," at Los Banos High School, Los Banos.

The "Science on Saturday" lectures are free and begin at 9:30 a.m. and end at 11:30 a.m. Seating is on a first come, first-served basis. The talks are intended for junior high, high school and college students. The topics are selected from the forefront of science and technology research in a variety of disciplines.

Thursday
19

The Asian Pacific American Heritage Month Festival takes place today at 11:30 a.m. at the Lab pool/lawn area. Features include a variety of ethnic foods, cultural exhibits and entertainment by the San Jose Taiko Japanese Drums and Korean Dance choreographed by Suk Wung Choi.

The Chinese American Networking Group (CANG) is selling pre-ordered egg rolls that are ready for distribution at the festival today. The price of egg rolls is still \$1. All orders must be prepaid before pick-up at the pool/lawn area from 11:30 a.m. to 12:30 p.m. Contact Eric Chow, 2-0552, or e-mail at Chow6@llnl.gov to place your orders by Tuesday, May 17.

Up & Coming

Employees are invited to attend "Many — A Living History of Marie Curie," performed by storyteller Susan Marie Frontczak on Tuesday, May 24, from 2-3 p.m. in the Bldg. 123 auditorium. The program is part of the Lab's celebration of the World Year of Physics 2005.

The one-woman drama honors a pre-eminent woman of science — the discoverer of radium and radioactivity, and recipient of two Nobel Prizes. For further information, call 2-4599 or see the Website: <http://www.llnl.gov/pao/WYOP>.

...

The retirees' travel group meeting on Tuesday, May 24, at 2 p.m. has changed locations. The meeting will be held at the Livermore City Council Chambers, 3575 Pacific Ave. The topic is Southeast Asia and Vietnam by Arlene and Stephen Chin.

...

A Fidelity retirement counselor will be available May 16, 19 and 24 to assist with assessing the current state of retirement accounts, learning how to diversify, planning asset allocation and identifying income strategies. Fidelity Investments Mutual Funds are available to UC's workplace retirement plan participants in addition to the UC-managed investments pools. If you would like to set up a consultation with a Fidelity representative, call 800-642-7131.

Konda reaches out



JACQUELINE MCBRIDE/NEWSLINE

Asian Law Alliance Executive Director Richard Konda gave an impassioned talk Tuesday on legal and cultural issues facing the South Bay Asian community. Konda spoke about several high-profile cases including the San Jose police shooting of a young Vietnamese mother in July 2003.

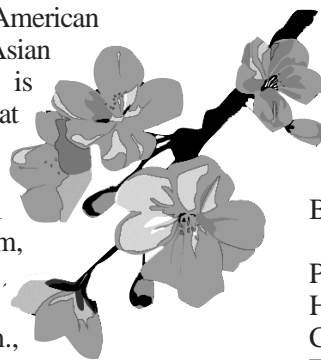
Lab events celebrate Asian Pacific heritage

In celebration of Pacific American Heritage Month, the LLNL Asian Pacific American Council is hosting a series of events at Sandia and the Laboratory.

- May 16 — Diversity talent show, 11:30 a.m.-1 p.m., Bldg. 904 auditorium, Sandia.

- May 18 — Noodle contest, 11:30 a.m.-1 p.m., Bldg. 940 courtyard, Sandia.

- May 19 — Asian Pacific American heritage festival, 11:30 a.m., LLNL pool/lawn area. Features include a variety of ethnic foods, cultural exhibits and entertainment by the San Jose Taiko Japanese Drums and Korean Dance choreographed by Suk Wung Choi.



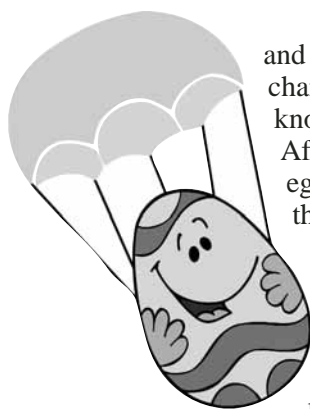
- May 24 — Rosemary Gong, author of "Good Luck Life — The Essential Guide to Chinese American Celebrations and Culture," will present the APAC scholarship awards from 11:30 a.m.-1 p.m. in the Bldg. 155 auditorium.

- May 26 — APAHM festival, 11:30 a.m.-1 p.m., Bldg. 911 parking lot, Sandia.

The events are sponsored by the LLNL Asian Pacific American Council, the Administration and Human Resources, Energy and Environment, Chemistry and Materials Science, and the Safety and Environmental Protection directorates, the Worklife Center, and the Sandia/Livermore Asian Pacific Leadership Committee.

For more information, contact Bing Young, 3-0281 or Ravi Upadhye, 3-1299, for LLNL events, or Martha Campiotti, 294-2998, for Sandia events.

Students get cracking to test physical phenomena



Budding Albert Einsteins and Marie Curies will get a chance to test their physics know-how when the Public Affairs Office holds a special egg drop contest in honor of the World Year of Physics.

The contest, open to all students in Livermore and Pleasanton middle schools, dares students to test their knowledge of motion, gravity, force and other physical phenomena by building a vessel to protect a raw egg when dropped from a height of 15-20 feet.

The winner, that is, the owner of the egg that does not crack, will receive a \$100 cash prize. In the event of tie, a winner will be chosen based on originality of design.

The contest takes place Monday, May 16, at 3:30 p.m. in the Public Affairs parking lot (behind the Discovery Center; enter near the Credit Union). All employees are welcome to come watch.

The egg drop is one of three student contests sponsored by Public Affairs in honor of the World Year of Physics. A physics poster contest was offered to children in grades 4 and 5, while high school students were invited to participate

in a physics poetry contest. Winners of the poster and poetry contests will be notified May 23.

For more information on the egg drop contest, call Lynda Seaver at 3-3103.

Newsline

Newsline is published weekly by the Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

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SFSU students take a look at groundwater

A San Francisco State University student operates a remote camera down a well and watches the live feed on the monitor to the right as Billy Clark (Environmental Restoration Division) looks over his shoulder. SFSU Instructor Matt LaForce and 10 students from his Contaminant Hydrogeology class visited the Lab recently on a field trip hosted by LLNL's Environmental Restoration Division.

SCIENCE DAY

Continued from page 1

research to Einstein's theories published 100 years ago — theories that changed the course of science.

Presentations are organized in four sessions relating to Einstein's seminal papers of 1905: light and matter; astrophysics; theory and simulations; and physics in biology.

The sessions, held from 8 a.m.-5 p.m. in the Bldg. 123 auditorium, will feature talks by prominent guests and Laboratory scientists.

A poster session will include a fifth area — nuclear physics — and will take place in the World Year of Physics Celebration Pavilion in

the West Cafeteria parking lot. The poster expo offers one-on-one interactions with more than 60 scientists and engineers from across the Laboratory. Scientists will be on hand to present posters, video displays and demonstrations of hardware and instrumentation that showcase their recent work. The poster expo will be open all day, from 8 a.m.-5 p.m. with exhibitors present from noon to 2 p.m.

Alan Wootton, chief scientist in Physics and Advanced Technologies, took the lead in managing this year's event. He stated that in planning the activities, Einstein's papers were reviewed, themes were identified and then the search was on to find internal and external speakers whose current work related to those areas.

"This is a fantastic opportunity for people within the Lab to see what their colleagues are working on and to hear outstanding scientists," Wootton said, adding that although Science Day is publicized as a technical event, a general audience would find the talks of interest as well.

Karen Kline, managing editor of Science Day publications, said: "All Laboratory employees are invited to attend. In fact, any employee with an interest in science would benefit from taking part in this special day."

A booklet containing abstracts of the presentations will be available at the event. For more information about Science Day, including the schedule of presentations, abstracts and posters, go to <http://scienceday.llnl.gov/>.

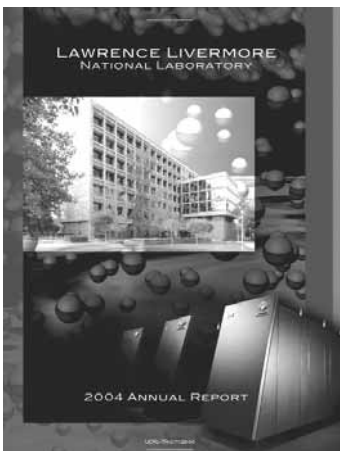
BRIEFLY

2004 Lab Annual Report in the mail

The Laboratory's 2004 Annual Report will be arriving in employee mailboxes next week. It offers a look at activities throughout the Lab, from the successful shots at the JASPER gas gun and other experiments that support stockpile stewardship to the opening of the Biodefense Knowledge Center, to partnerships with industry, to high marks from external reviewers.

The theme of Director Michael Anastasio's introductory statement is change and reinvention. He offers thanks when he says "continual change and reinvention to meet evolving challenges would not happen without contributions from all Laboratory employees. An outstanding, dedicated staff is the key to our successes."

He ends his statement with some future plans. "This year, my senior management team will be working with future leaders across the Laboratory to refine our shared vision of Livermore's future....We are excit-



ed to take on the opportunities and challenges the future offers."

Caltech ASC computing road show comes to the Laboratory

The Caltech Center for Simulation of Dynamic Response of Materials road show comes to the Laboratory this year from 8:30 a.m. to 5 p.m. on Monday, May 16. The show is sponsored by the Advanced Simulation and Computing/ASC Strategic Alliances Program (ASAP) and hosted by Lawrence Livermore and Sandia national laboratories.

The road show, which partners with universities, is an integral element of the ASC/ASAP. The group pursues advances in the development of computational science and engineering, computer systems and numerical mathematics important to ASC and to computational science. Participating universities are developing new computational frameworks as they make advances in several scientific areas such as turbulence, fluid dynamics, material sciences, solid dynamics and radiation physics. The goal is to integrate large computer models from these various disciplines into single, comprehensive models necessary to solve critical scientific and engineering problems. The Caltech ASC road show will provide a unique opportunity for LLNL scientists to interact with faculty members and students and explore further areas of collaborations.

Program details:

- 8:30 a.m.-noon, Bldg. 155 auditorium: Solid Dynamics group presentations
- 12-1:30 p.m., Bldg. 235 courtyard: lunch break
- 1:30-3 p.m., Bldg. 235 Gold Room:

Materials Properties group presentations

- 3-5 p.m., Bldg. 235 hall: poster session by students and post docs

For further information, contact Jaime Marian, 3-7039, or Megan Targowski, 3-4387.

Talk to focus on new ergonomics research findings

Nationally known ergonomist Jerome Congleton, a Texas A&M professor, will share new research findings in the field of office and industrial ergonomics in a Laboratory talk on Monday, May 16. He also will discuss how those findings can be applied in the workplace to minimize injuries and maximize productivity.

The start time has been revised since the announcement of the talk in the May 6 edition of *Newsline*. It will now run from 9:30 to 11 a.m. in the Bldg. 123 auditorium.

Congleton is a member of the Occupational Environmental Health Program at Texas A&M and is co-director of the National Science Foundation's Industry/University Cooperative Research Center in Ergonomics.

IPPP forms updated

The three IPPP performance appraisal forms (Exempt Relative Value Ranked, Exempt Absolute Value Ranked and Nonexempt Absolute Value Ranked) have been updated on the Web to correct formatting issues. All supervisors and managers should re-download the forms. To ensure use of the correct form, the new versions are footnoted with a revised date of May 10, 2005. The forms can be accessed at <http://www-r.llnl.gov/IPPP/forms.html>



NEWS YOU CAN USE

Town hall meetings to seek employee input on Lab's future

Aurora Strategic Planning Teams kicked off a series of town hall/brown bag lunch meetings Thursday when the Workforce and Work Environment group hosted a forum to share ideas and gather input from employees.

The Aurora project is designed to develop strategic initiatives that will effectively position the Laboratory for its new 2025 vision: a multidisciplinary science and technology laboratory dedicated to national security in a global context. The project was named after Aurora, the Roman goddess of the dawn.

The Aurora project has been divided into



LLNL'S VISION FOR 2025

five strategic planning areas: Missions and Sponsors; Science and Technology; Operations and Infrastructure; Workforce and Work Environment; and Partnerships and Relationships. Approximately 100 employees from across the Laboratory are serving as

team members. In addition to the town hall meetings, employees may submit ideas to the teams or associate directors via the MyLLNL portal. All ideas will be considered.

The next town hall meetings are:

- May 16: Partnerships and Relationships, noon-1 p.m., Bldg. 123 auditorium
- May 17: Operations and Infrastructure, noon-1 p.m., Bldg. 123 auditorium
- May 20: Missions and Sponsors, noon-1 p.m., Bldg. 155 auditorium
- May 26: Science and Technology, noon-1 p.m., Bldg. 123 auditorium

Technical Meeting Calendar

Friday
13

CHEMISTRY AND MATERIALS SCIENCE/MSTD

"Special Lecture Series on Classical Nucleation Theory: Introduction and New Results (Part 2)," by Joseph Farjoun, UC Berkeley. 10:30 a.m.,

Bldg. 155, room 1101, auditorium. Property protection area. Foreign national temporary building access procedures apply. Contact: Kenneth Kim, 3-8567, or Linda Jones, 3-8839.

INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS

"Is Anybody Out There? IR, Visible & Radio SETI with Five Million SETI@home Volunteers," by Dan Werthimer, U.C. Berkeley. Noon, Bldg. 319, room 205. Property protection area. Foreign national temporary building access procedures apply. Contact: Wil van Breugel, 2-7195, or Lisa Lopez, 3-0250.

Monday
16

PHYSICS & ADVANCED TECHNOLOGIES/V DIVISION

"Modeling Magma: Ab initio Simulation of Silicate Liquids at High Pressure," by Lars Stixrude, University of Michigan and visiting

Miller professor, UC Berkeley. 9 a.m., Bldg. 319, room 205. Property protection area. Foreign national temporary building access procedures apply. Contact: Stefanie Landes, 2-3201.

HAZARDS CONTROL AND SAFETY AND ENVIRONMENTAL PROTECTION

"New Findings in Office and Industrial Ergonomics," by Jerome Congleton, Texas A&M University. 9:30-11 a.m., Bldg. 123 auditorium. Common use facility. Foreign nationals may attend. Contact: Dena Rutan, 3-0696.

CHEMISTRY AND MATERIALS SCIENCE/MSTD

"Geometrical Frustration in Magnets and Beyond," by Art Ramirez, Lucent Technologies-Bell Labs. 10 a.m., Bldg. 235, room 1090, Gold Room. Property protection area. Foreign national temporary building access procedures apply. Contact: Christian Mailhot, 2-5873, or Jana Marden, 2-6091.

CHEMICAL BIOLOGY AND NUCLEAR SCIENCE DIVISION/BIOSECURITY & NANOSCIENCES LABORATORY

"Utility and Functional Modification of Multi-Segmented Metallic Nanorods," by Jeff Tok, Bio-Organic Synthesis and Protein Chemistry Group, Chemistry and Materials Science Directorate. 2 p.m., Bldg. 151, room 1209, Stevenson Room. Foreign nationals may attend if approved plan is on file, which includes Bldg. 151. Contact: Ted Tarasow, 3-7241, and Katie Thomas, 2-7903.

CHEMISTRY AND MATERIALS SCIENCE DIRECTORATE/ FRONTIERS IN CHEMISTRY AND MATERIALS SCIENCE

"Polymers at the Nanoscale," by Peter F. Green, Department of Chemical Engineering and Graduate Program in Materials Science and Engineering, University of Texas at Austin. 3:30 p.m., Bldg. 155, auditorium. Coffee and cookies will be served at 3:15 p.m. Foreign nationals may attend. Contact: Randy Simpson, 3-0379, simpson5@llnl.gov, or Kathleen Moody, moody2@llnl.gov.

Tuesday
17

ASC INSTITUTE FOR TERASCALE SIMULATION LECTURE SERIES 2005

"An Overview of High Performance Computing and Self Adapting Numerical Software," by Jack Dongarra, University of Tennessee. 2

p.m., Bldg. 453, room 1001, Armadillo Room. Property protection area. Foreign national temporary building access procedures apply. Contact: Steven Lee, 4-5989, or Linda Becker, 3-0421.

Wednesday
18

INTEGRATED COMPUTING & COMMUNICATIONS DEPARTMENT/MACINTOSH TECHNICAL SEMINAR SERIES

"BRU Data Backup and Restore Software," by Tim Jones, president and

CTO, TOLIS Group Inc. 10:30 a.m., Bldg. 361 auditorium. Contact: Duane Straub, 2-9774.

ME/LESD

"MathCad 12 — A Calculation Tool," by Michael Piccus and Anji Seberino, Mathsoft. 10:30 a.m. - noon, Bldg. 481, auditorium. Common use facility. Foreign nationals may attend. Contact: Guia Bisaro, 3-1050. Visit the MathCad Website at mathsoft.com. MathCad is available to all employees in the Engineering Directorate on the Engineering server. Contact: Guia Bisaro, 3-1050.

ENERGY AND ENVIRONMENT DIRECTORATE

"Yucca Mountain Repository: Technical Progress Report," by Robert J. Budnitz. 1:30-3 p.m., Bldg. 170, room 1091. Refreshments will be served. Contact: Camille Vandermeer, 3-2672.

CENTER FOR APPLIED SCIENTIFIC COMPUTING (CASC) / INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH (ISCR)

"FOSLL* Method for Eddy Current Problem with Three Dimensional Edge Singularities," by Eunjung Lee, University of Colorado at Boulder. 10 a.m., Bldg. 451, room 1025, White Room. For more information, see URL (<http://www.llnl.gov/casc/calendar.shtml>). Property protection area. Foreign national temporary building access procedures apply. Contact: Rob Falgout (CASC), 2-4377, or Erica Dannenberg, 3-2167.

Thursday
19

CHEMISTRY AND MATERIALS SCIENCE DIRECTORATE/CHEMICAL BIOLOGY & NUCLEAR SCIENCE POST DOCTORAL APPLICANT SEMINAR

"Molecular Manganese Compounds as Single-Molecule Magnets: A Molecular

Approach To Nanoscale Magnets," by Nicole Chakov, University of Florida, Gainesville. 10 a.m., Bldg. 151, room 1209. Property protection area. Foreign national temporary building access procedures apply. Contact: Beverly Zumwalt, 2-7535, or Brad Hart, 3-1970.

CENTER FOR APPLIED SCIENTIFIC COMPUTING (CASC) / INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH (ISCR)

"Computational Molecular Modeling: Algorithms and Computer Hardware," by Eric Darve, Stanford University. 10 a.m., Bldg. 451, room 1025, White Room. Property protection area. Foreign national temporary building access procedures apply. Contact: John Johnson (CASC), 4-4092, or Erica Dannenberg, 3-2167.

Friday
20

CENTER FOR APPLIED SCIENTIFIC COMPUTING (CASC) / INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH (ISCR)

"Point-Set Surfaces: An Update and Recent Work," by Claudio T. Silva,

University of Utah. 10 a.m., Bldg. 451, room 1025, White Room. Property protection area. Foreign national temporary building access procedures apply. Contact: Valerio Pascucci (CASC), 3-9422, or Erica Dannenberg, 3-2167.

INSTITUTE FOR GEOPHYSICS AND PLANETARY PHYSICS

"Stellar Interferometry at Mid-IR Wavelengths — The Characteristics of Old Stars," by Charles Townes, UC Berkeley. Noon, Bldg. 219, room 163. Contact: Wil van Breugel, 2-7195, or Lisa Lopez, 3-0250.

DYNAMICS OF METALS SEMINAR

"Dislocation Nucleation at Surfaces," by Guanshui Xu, Department of Mechanical Engineering. 2 p.m., Bldg. 219, room 163. Property protection area. Foreign national temporary building access procedures apply. Contact: Robert Rudd, 2-4292, or Wendy Dossey, 3-5556.

The deadline for the next Technical Meeting Calendar is noon, Wednesday.

Please submit your meetings via the new Technical Meeting Calendar form on the Web, located at <http://www.llnl.gov/tmc/index.html>

AROUND THE LAB



Geologist’s wilderness survival skills aid injured cyclist

By Linda Lucchetti
NEWSLINE STAFF WRITER

When John Karachewski left his home for a hike in Mount Diablo State Park on Sunday, April 10, he was looking forward to an enjoyable day taking landscape photos and getting some exercise. But that plan soon changed dramatically.

Karachewski, who works for Weiss Associates in the Lab’s Environmental Restoration Division, was halfway up the steep Burma Fire Trail off Northgate Road when he stopped to take some photos and noticed a solo mountain biker lying in the middle of the dirt road.

“From a distance I thought he might be napping in the sun, because it was a warm afternoon and his bike helmet was covering his face and shading his eyes. But then I heard some faint cries for help,” Karachewski said. He rushed to the injured man who was scraped with several bloody abrasions, semi-conscious and lying on his back.

After a quick assessment, Karachewski used his cell phone to dial 911 and directed the operator to transfer him to the Mount Diablo State Park dispatcher. He informed the dispatcher of the victim’s condition and their exact location. While waiting for the ranger to arrive, Karachewski comforted the injured cyclist and was able to gather valuable information about his medical condition as well as his name, age, wife’s name, phone number and the type of car he was driving.

Interestingly, 32-year-old Juan Pablo Senosiain had lost his short-term memory and did not know where he was or what day it was. Senosiain also continued to repeat the same information. Because the accident occurred on a fire road, park ranger Ryen Goering was able to reach the pair in his four-wheel-drive vehicle a few minutes after receiving the 911 call.

After evaluating Senosiain’s vital signs and complaints about back pain, the rescuers decided that they could not transport him down the steep dirt road — so a medical helicopter was



Flight nurses and rangers prepare to evacuate an injured bicyclist from Mount Diablo State Park after he was found by a Lab geologist who was hiking in the area.

summoned to retrieve him. The flight nurses and rangers rolled Senosiain onto a back stretcher, while Karachewski snapped a quick photograph of the rescue effort and helicopter flying to a closer landing spot. Together they carried the stretcher and loaded Senosiain through the back of the helicopter, for a brief flight to John Muir Hospital in Walnut Creek.

Karachewski believes that bringing his cell phone along on the hike played a critical role in the rescue effort, and oddly enough, was something he initially left behind.

“I walked out of the house without my cell phone and was on my way to the park when I realized it was missing,” he said. “Usually, if I am out hiking for a long time, I check back with my wife, so I thought I better have it and drove back to my house to get it.”

Also, it was a good thing that this “Good Samaritan” had some wilderness survival skills. “Luckily, being a geologist, I’ve had training in map reading and first aid. I knew what to do

and more importantly what not to do, such as moving someone with a potential head, neck, or back injury or giving them food or water. I just tried to calm him and continued talking to him,” Karachewski said.

After the helicopter evacuation, Goering indicated that “Karachewski did a great job” and Senosiain was lucky that he found him because very few people use the trail. Although uncertain, Karachewski suspects that Senosiain had probably been lying on the fire road for at least an hour, maybe longer.

Shortly after the rescue, Karachewski had an emotional phone conversation with Senosiain’s wife, Sonia. She thanked him and was very grateful to everyone involved in the rescue. Sonia Senosiain indicated that her husband had suffered a serious concussion, fractured a bone near the base of his skull and broke a vertebrae in his back. She said that his condition was improving, but that he would need to wear a neck brace and body cast for up to three months. She was surprised to learn that her husband had been evacuated in a helicopter. The

only thing she knew was that he went mountain biking and ended up in the hospital. Senosiain’s parents flew from Mexico to be with their son in the hospital.

Later that week, Karachewski discovered that Senosiain is an engineer at Sandia National Laboratory and a member of the Cycletrons bicycle club. Several of Karachewski’s coworkers who are active cyclists know Senosiain and have offered to help his family. Karachewski spoke with Senosiain after he returned home from the hospital and he sounded very positive, optimistic, and looked forward to returning to work.

Karachewski has extensive wilderness experience throughout the Western United States often on solo trips, but this was his first backcountry emergency. His advice to others who hike or bicycle in remote areas: carry a cell phone (but don’t assume it will work everywhere), successfully complete first aid and CPR classes, know your location and, if biking, wear a properly fitted bike helmet.

Asbestos tiles pose no significant hazard to employees

By Bill Pereira, MD
HEALTH SERVICES DEPARTMENT

Recently, the Laboratory was alerted to concerns about the proper identification of ceiling tiles containing asbestos in a number of Lab buildings. Asbestos is the name for a group of naturally occurring minerals that separate into strong, very fine fibers that were once very useful in construction, but are no longer used. Some employees have expressed concern about potential asbestos exposures from the tiles, notably those employees whose jobs require them to access ceiling crawl spaces.

Asbestos containing tiles only pose a health risk when the tile material is “friable,” that is, can be reduced to powder by the application of hand pressure. If the surface of the ceiling tiles is well sealed, there is no health risk because asbestos fibers are not released into the air. Damaged tiles generally do not pose a hazard unless the damage results in the release of visible dust, which is then disturbed by routine operations such as

housekeeping. Disturbance of damaged or undamaged ceiling tiles may release a very small quantity of asbestos dust.

Inhaled asbestos-containing dust can cause lung disease (“asbestosis”) or cancer; however, this is usually only after many years of repeated and prolonged exposure to high levels of asbestos. There are very low levels of naturally occurring asbestos in the environment, which everyone is exposed to daily. Health effects from low-level, intermittent exposures are very unlikely.

Only about 3 percent of Lab ceiling tiles are thought to contain asbestos, and fewer still would release asbestos when handled. The tiles of concern are the “drop-in” type that fit into a metal frame system. Most drop in T-bar ceiling tiles are friable even when new. Of the 14 on-site buildings with asbestos-containing ceiling tiles, only five have the “drop-in” tiles: Bldgs. 151, 241, 255, 361and 836A. Three other buildings, Bldgs. 113, 115 and 194, had them removed in 2004. The precise location of all remaining asbestos-containing ceiling tiles, their condition, and the exposure risks involved in manipulating them are currently being re-assessed (see *Newsline*, April 29).

Although medically significant exposure levels are not expected, Health Services will work with Hazards Control to determine the levels of asbestos exposure that may have been associated with different activities involving ceiling tiles. Based on that determination, Health Services will make recommendations on whether any employee groups should have medical surveillance testing as a result of asbestos ceiling tile work.

At any time, concerned employees may contact their ES&H team industrial hygienist or team clinician, drop into Health Services, or contact Bill Pereira (pereira7@lnl.gov or 2-0382) to discuss asbestos-related concerns.

ES&H team industrial hygienists and team clinicians will be meeting in the coming days with groups around the Lab to discuss their concerns and answer questions. To set up a meeting, employees should have their facility manager contact their ES&H Team.



CLASSIFIED ADS

See complete classified ad listings at
<https://www-ais.llnl.gov/newsline/ads/>

AUTOMOBILES

1947 - Willys Jeep. Stock with extras. In good running condition. Price 3000. Ask for Rose or Carl 925-373-6651.

2002 - Mustang GT coupe, V8,4.6L, 38,000 miles. Blue, leather, 5 speed. Spotless interior/exterior. \$14,500 Robbyn 925-337-2184

2000 - Infiniti I30t w/Sport pkg. P/W, CC, Sunroof, Lthr. 78,500 miles EXLNT Cond 1 owner all paperwork/keys etc. Call John. 925-209-7003

1997 - NISSAN ALTIMA GXE, excellent condition, original owner, no accidents, 66K, automatic, cruise control. \$4,500 OBO. 925-449-3422

2001 - Ford Taurus SES. Excel. Cond! All power, AC, 64k, black. \$7850 OBO. 209-825-7810

1993 - Oldsmobile Achieva, 59K miles, 4dr, AT, AC, 6cyl, AM/FM cass, runs great, \$1,500 925-449-4602

2003 - PT Cruiser, Touring Edition, 30K miles, Excellent Cond. 209-239-2639

2001 - Honda Accord EX-L, 44k miles, 4-cyl, auto, leather, 6-disc CD, blue exterior, gray interior, \$15k obo 925-699-4763

2001 - Subaru Forester S, fully loaded, AWD, great cond., silver, 81,500 mi., \$12,500. 925-485-1947

1999 - Hyundai, Sonata, GLS, V6, sun roof, mag wheels, CD player, power windows/doors, front and side airbags. 81K mostly freeway miles - \$6500.00 209-951-0115

1997 - -Volvo 960, 4-door sedan, leather, sun roof, premium sound, new tires, well maintained... 5.5k... 209-832-2740

1996 - Acura Integra RS Coupe, Dark Green well cared for 180,000 miles, loaded, must see!! \$3750.00 obo 925-980-1613

AUTOMOBILE ACCESSORIES

1:24 scale die cast stock car, limited edition, Elliott Sadler M&Ms, Yates Race Team. Made by Action Technologies. Brand new. Paid \$75. \$30 925-648-0671

4 ea. 16 inch stock alum Chevy rims, 6 lug, with tires off 97 Tahoe, 40 percent tread. \$100. 925-292-1785

BICYCLES

Race frame. 56cm with nice fork. \$50 925-373-6255

BOATS

35 HP electric start outboard with prop. Includes shift and throttle cables, steering cables, key and gas can. Worked fine. 766-8233. Make Offer. 925-516-2570

Sailboat, Newport 27 sloop. Inboard diesel, roller furling jib, spinnaker, full batten main. Sleeps 5. \$8,000 OBO. 925-980-0144

Jet Boat,76 Sabre, 455 Olds marine V8, excellent fast running. 3 fuel tanks, trailer yellow/black. \$4500 OBO 209-833-6452

CAMERAS

Minolta 7000 SLR/autofocus with 50mm lens, 28mm lens and 70-210mm lens. Flash, strap, filters, bag and extras \$300 obo 925-634-2701

ELECTRONIC EQUIPMENT

New palmsize hi-res videocamera/digital camera/MP3 player. Record DVD quality video on SD memorycard. Playback on TV/computer, sacrifice for \$289 415-543-3643

GE Profile Digital White Upper/Lower convection oven \$300.00 OBO 925-963-7084

Stereo reciever. Mint condition. Denon is the brand. \$40 925-373-6255

GIVEAWAY

Attachable Molded Wave Slide. Approximately 8 ft long. Used on a Backyard Playset. Very Good Condition. 925-449-8757

HOUSEHOLD

White tubular metal sofabed frame. You add the futon. Make reasonable offer. 925-516-2570

Girls French Provincial bedroom set--double dresser, small chest, night stand, and corner desk. Off-white with yellow and green trim. \$100 OBO. 925-846-3653

Oak Desks (2), suitable for children, drop-down front, two drawers, excellent condition, \$50/each. 925-443-8889

Antique (circa 1890) oak roll top desk with numerous pigeon holes. Needs work on two drawers. \$650. 925-443-9682

Jacuzzi redwood enclosure. 8 x 8 with sliding doors, shaded windows. Good condition. \$3500 new. Asking \$300 obo. 209-612-0231

Large Oak Desk, 30 x 60, solid wood, natural finish, drawers both sides and center drawer, excellent condition. \$125 925-961-0462

Walnut coffee table, 2 end tables (1 large, 1 small) good condition all 3 \$100.00 or B/O. 1 large dresser \$40.00 or B/O 925-449-5957

Beautiful Stiffel Lamp. Make an offer 209-832-5944

GE Spacemaker Microwave with Preset keys. Great condition. \$50.00 925-963-7084

Sofa & loveseat, geometric pattern w/brown/green/cream tones. \$200.00 Coffee & end table (oak w/glass top) \$50.00 All good cond. Pix avail. 510-792-1538

Fireplace screen, gray wrought iron, 31 inch high x 51 1/4 inch wide. Paid \$60. New in unopened box. \$35 925-648-0671

Oversized chair and love seat. White with embroidered pattern. Great Condition. Pictures available, \$175 OBO. 925-964-0534

Recliner loveseats, southwest design, beige bkgnd - green/blue stripes - wood accents. Great condition. Pic available. \$175 a piece/\$300 for both. 209-951-0115

New oak mission style dinning room table/chairs. Table 72x42, 2 leaves, six chairs (one captain chair), mint condition. \$975.00 925-449-9038

Pillow back sofa and loveseat. Gently used. Good condition, no rips or tears. Call for pics. P/u in Tracy. \$450 or b/o 209-835-7413

Handi Quilter \$300. Portable Home Machine Quilting Frame. Use with your sewing machine. Used twice. 925-785-4680

Beautiful antique round oak table with carved flower detail. Includes buffet and 6 chairs. Must see to appreciate \$600. 925-606-6338

White GE Profile Washer and Dryer in good condition. Used 5 yrs. \$100 209-234-3854

Baby swing. Battery operated. Used twice. \$50. 925-373-6255

Window Air Conditioner ó Whirlpool 10,000-11,999 Btu/hour, Energy Star rated, used 2 seasons, w/mounting bracket. \$322 new, sell for \$150. 925-634-9976

multi-family yard sale in Piedmont 42 craig ave(x highland) Sat. 5-14 9-3p.m./5-15 9-12 fishing, household, clothing, books, furniture, etc. 510-653-1017

Ornate Bronze Iron and Glass Circular Kitchen Table with 4 Chairs. Great Condition (2 years new). You pick up. \$225 OBO. 925-513-0927

Garage Sale! Multi-family-40+, fund-raiser, 1341 Schleiger Dr. Tracy, Sat. May 21st, 8am-4pm 209-839-0068

LOST & FOUND

LOST - Expensive pair of Maui Jim Sunglasses, somewhere between central cafeteria and bldg. 490. \$\$ Reward for their safe return. 925-426-8156

MISCELLANEOUS

AIRCO 300 amp heli arc welder. \$500.00 or trade 925-516-7849

Golf membership for sale at a Danville country club. Must sell - call evenings for information 925-820-0679

Two heavy duty polyethylene shipping cases

for camping equipment, electronics, whatever. Size is about 3 by 3 by 1.5 feet. \$75 each 925-447-5194

Above Ground Pool by Splash. 17x30x4 ft deep. \$2000 with all accessories. u pick up and haul away. 925-373-6651

New Innotek Preimium Rechargeable In Ground Pet fencing system with 1000f (2 spools) of wire and surge suppressor.\$216. 925-785-4680

Garage Door, white, windows, single car garage with electric screw type opener. \$300 OBO 209-612-0231

Riding mower Works needs TLC 15 HP Kohler, 4inch cut. 200.00 OBO. Moving must sell lots of stuff. 209-983-8372

Moving, Hvy Dty Chain link 2 rolls 75.00 ea. Tractor, Kabota w/front PTO shaft 5,000.00 96 Mazda 3.0 V6 Auto loaded 4800.00 OBO. ALL RUN EX! 209-983-8372

Free fireplace insert. You haul. 209-527-8608

Buffy the Vampire Slayer Season One DVD boxed set. \$22. Includes original inserts. Paid \$40; watched once. 925-634-1110

Easy Bake Oven and snack center for child. Ages 8 and up. Paid \$25. New in unopened box. \$15 925-648-0671

Flamable liquid locker, style used at llnl 2 door under-counter type. (new over 400.00)well used \$45.00 can deliver to llnl or locally. 209-526-6272

Heavy Duty Chipper/Shredder. 8.5 hp Craftsman brand, hardly used, works great, manuals incl. Purchased 1998, sell for \$375 925-449-5543

2 tickets to Alicia Keys, 8 pm Wed. 5/25, Oakland Paramount Theatre, Orch Row GG Seats 22 & 24, \$90 each. 925-245-9934

Two teal green leather loveseats. Good condition. \$200 for both. Large solid oak butcher block type coffee table \$50.00. 925-606-6338

BIG 40+ Family Yard Sale Fund-Raiser, lots of new and used items, 1341 Schleiger Dr., Tracy, 8:00am to 4:00pm, Sat. 5/21 209-839-0068

Makita 3621 1-1/4 HP Plunge Router. Never used. \$100. 925-456-3462

2003 Meade LX200 GPS 8in. Schmidt-Cassegrain telescope, 9 eyepieces, polarizing lense and Camera adapter. \$1,550.00; retails for over \$2,300.00. 925-294-9554

35 HP electric start outboard with prop. Includes shift and throttle cables, steering cables, key and gas can. Worked fine. 766-8233. Make Offer. 925-516-2570

MOTORCYCLES

2001 - 2001 Honda XR80s. I have 2 of these. Daughters have outgrown. Excellent cond. 1200/ea. 209-824-5727

1995 - Suzuki RMX 250. Excellent condition. 209-321-9931

two race style gokarts both run good and fast \$600.00 each or \$1000.00 for both.call after 6:00 pm but before 9:oo pm 209-574-0939

2003 - Harley Davidson Sportster 883 100th anniversary series 4500mileage black with lots of chrome excellent condition call after 6pm 209-403-2707 209-403-2707

MUSIC INSTRUMENTS

Cymbal arm holder. Yamaha 3 way cymbal arm holder. Unused! \$25 925-373-6255

Ukelele,soprano, with gig bag and instuction book \$80 925-634-2701

PETS & SUPPLIES

Black cat - male, 8yrs old, neutered, declawed. FREE to good home. 209-499-2322

Free bird cage. Oak and mesh. Cage volume is about 3ftH by 3ftW by 1.5ftD. Pedestal with storage. Total height 5ft. 925-606-9575

2 Free Rats, 5 months old, cage and supplies. Gentle males need more attention that we can provide. They sleep at night. 925-443-7729

Horses for sale, registered Arabian show stud, mare & Quarter horses. Misc. tack for sale. Call for info. Exp. riders. 925 449-5734 925-449-5734

Free to loving home! ~4.5 yr old black female cat. Spayed, de-clawed, no shots due until 3/06. Playful, sweet disposition. 925-449-5650

Purebred Boxer Pups, \$300-\$325, 3Female 1Male, Very cute 209-815-3882

English Saddle, 17 in. Wintec, great condition, barely used. \$200.00 OBO 209-482-3373

Consider saving lives by providing temporary foster care for homeless puppies and kittens. Please call if interested. Thank you 925-980-3035

Jack Russell Terriers, 3 weeks old, 4-SALE, 3 left, \$500.00 each,CKC Registered, will have first shots. Call Jodi for a viewing or pictures. 925-516-9606

RECREATION EQUIPMENT

BRAND NEW 5th wheel stabilizer. New \$125, will let go for \$60 209-740-0477

New Coleman 3 room tent, used once \$75.00, Porta-a-potti \$20.00. 925-308-7251

Pool, Intex, inflated size 66 x 16 inch round. 3 air chambers with double valves. Water capacity 168 gallons, ages 3 & older. Brand new. \$10 925-648-0671

Olympic weight bench. Heavy duty. Used once! \$75 925-373-6255

RIDESHARING

Express your commute, call 2-RIDE for more information.

San Jose - Seeking carpool partner from San Jose, on AWS 9/80 408-268-7924, ext. 2-9107

Orinda - Lamorinda carpool seeks 4th driver/rider. Meets near Hwywy 24 and St. Stephens. Lab hours 8am-4:45pm. 925-253-0498, ext. 2-9823

Oakland/Montclair - has openings. Departs Montclair 7:30 a.m.; departs LLNL 5:00 p.m. For more info call Ron, 510-530-1289, ext. 2-9831

Lafayette - LaMOrinda Vanpool (also WAL-NUT CREEK stop at Rudgear commuter lot): reclining seats, reading lights, 7:45-4:45, \$105/mo (pretax reduction available) 925-943-6701, ext. 2-3005

Clayton/Concord/WC/PH - Car pool looking for 2 rider/drivers; leave Rudgear Road P&R @ 6:15; Start wk @ 7:00, Return from Lab @ 4:00;return to P&R @ 4:40. 925-672-6677, ext. 3-2153

SERVICES

Looking for a cozy home for your children to grow? Daycare in Dublin. Meals and snacks provided. 925-829-6711

Incredible decorative painting, murals, trompe loeil and faux finishing! 925-461-5045

Margarita/Slushie machine for rent.Lab Discount. Great for your next event. easy to use. Many flavors available. 209-481-5442

Wedding Photography: 25 years exp. Reasonable prices and you keep the negatives. Medium format camera used. 925-829-1474

Affordable tree service. Pruning and removal. 925-443-9941

Custom CNC Laser welding,drilling,cutting for your special hobby needs,slotcars,motorcycles, trains,RC plane and much more. 510-481-5994

SHARED HOUSING

Elk Grove, CA - Room for rent in Elk Grove. Great for college students going to CSUS. \$450/mo, shared utilities and deposit. New home, avail mid June. 925-373-2832

Berkley or Livermore - LLNL undergraduate summer student looking for a room or apartment to share w/other students, starting in June. 206-781-5102

Livermore - Share 4Bdrm 2Ba house in quite neighborhood with one other person. \$575/Mo +1/2 utilities. No P/S. 925-294-8765

Livermore - Room for rent, 5 miles from Lab, for summer student, \$525/mo includes utilities. \$100 deposit. 925-443-0218

TRUCKS & TRAILERS

Trailer hitch for 1995 ford F150. In good shape \$50.00 209-740-0477

1997 - Komfort 24 ft. travel trailer, bunk beds, all amenities and will sleep 7 people. Asking \$6,800 OBO. 209-892-2763

2004 - 5th-Wheel, Mako by Fleetwood, 30ft., Two Slide-Outs, Fully Self-Contained, Take Over Payments, 925-699-1789

1992 - GMC Jimmy *TYPHOON*, rare collectible, needs some TLC, lowered, leather, custom wheels, 83K miles, power everything, V-6 TURBO, in Livermore, \$9500 925-455-6174

1960 - Wooden boat restoration project, complete with trailer and original, running Evenude outboard motor. \$300 OBO 209-612-0231

1993 - Ford F-150. Good condition. 302 V8. Original owner. Low mileage. Runs good. Camper shell. Tow package. Asking \$5,200.00. 925-455-6648

0000 - Kabota 21 hp diesel, 2 wd/ag tires Cat III pt hitch, tiller attach,runs great! MOVING must sell, 500+ hours. 5,000.00 OBO 209-983-8372

1995 - Dodge Ram 1/2 ton pickup. 112k miles, cd, air, new shocks and tires. Runs great, very reliable. Have shell also. 209-836-4996

2002 - Chevrolet Tahoe, Grey/Grey. Fully loaded. Great condition. Haul/towing pkg \$23,500 OBO. 925-963-7084

1964 - Ford F100 1/2 Ton Truck. New Brakes, Tires etc. \$2200.00 Ask for Rick 925-447-0558

1995 - Dodge Dakota 4x4, 4 inch lift, V8-5.2L, \$4200 OBO Paul Carlisle 925-606-1971

VACATION RENTALS

Long Barn, CA - Small cute cabin with lots of recreation activities in the area. 75/night. 209-824-5727

Perfect location for skiers! Tahoe cabin for rent 2 blocks from Heavenly. Sleeps approx 8 adults. \$400/wk, \$200/wknd. 925-240-1615

Mendocino/Ft. Bragg - Ocean View - large 4bd/4.5ba home in private neighborhood, large yard, hot tub, courtyard, deck, sleeps 10-12, \$475/2nts, pets ok w/ deposit 925-455-5942

SOUTH LAKE TAHOE - 3 Bedroom 2 Bath Chalet, comfortably furnished, all amenities,Park with Lake, tennis etc.Great for families!,RESERVE NOW FOR SUMMER! 209-599-4644

Solana Beach/Del Mar - Oceanfront Condo, deluxe 2br., 2 1/2 ba., fully equiped, tennis, pool, jacuzzi, gated and covered parking, near San Diego attractions 925-443-2271

MAUI - 1 year house exchange. Perfect opportunity to see what its like to live in paradise for longer than a short vacation. 925-449-4003

WANTED

Rail Road Ties for landscaping 209-632-8313

Electric lawnmower in good condition with grass catcher. Leave a message with mower specs and asking price. 925-443-8738

Looking for gas or electric cement mixer for church mission project in Mexico. 209-839-9999

Looking for adjustable or stationary Drafting Table. Used or new reasonably priced or giveaway. 925-449-8757

Wheelchair wanted for elderly friend on limited income. please help. 209-545-6892

Outdoor Kennel Call with details. 925-462-3055

Nissan 350z, AT, Prefer Blue, but will consider Silverstone or Silver also 925-457-7944

RAKOW

Continued from page 1

tion, financial management and policy development. Rakow will manage the Lab's institutional budget of approximately \$1.6 billion dollars as well as supervise approximately 130 employees.

Rakow also will work closely with UC officials, the Department of Energy/NNSA and other federal agencies on Laboratory-related financial matters.

"I am very honored to have been selected for this position," Rakow said. "I will continue to uphold the strong financial integrity of this Laboratory and ensure that our business and financial practices and systems are best in class."

In an interview with *Newsline*, Rakow complimented the CFO employees.

"I am very pleased to be a part of this organization," she said. "I have a great deal of admiration for the employees here and I recognize the value they bring to the Laboratory. Our top priority will be to ensure that our goals and priorities are aligned with the goals Mike has set out for the Laboratory."

Another top goal for Rakow will be to "bridge

the gap between institutional financial management and the rest of the Laboratory. Our organization has already made significant progress toward developing more effective partnerships with the programs and directorates, and together we are affecting positive change in the Lab's financial practices."

Rakow started at the Laboratory in 1985 in the Budget Office and has held a number of senior management positions during her career. Prior to her appointment as acting CFO, she was the assistant deputy director for Operations, Business and Finance, providing senior-level financial management support, both programmatic as well as institutional, to the director, the two deputy directors and the associate directors for Defense and Nuclear Technologies and the National Ignition Facility. Rakow also was the associate director resource manager for Physics; business manager for Defense and Nuclear Technologies, assistant associate director for program planning in the National Security Office, and provided senior financial management oversight



Linda M. Rakow

to the National Ignition Facility Programs directorate. In 1999, she undertook a six-month assignment with NNSA in Washington D.C. Prior to joining the Laboratory, she held various technical and managerial roles with Reynolds Electrical & Engineering Company, Nevada Test Site, from 1975-85.

Rakow has a master's degree in business administration from the University of the Pacific in Stockton and a bachelor's degree in microbiology from the College of Charleston, in Charleston, S.C. The fact that she has a degree in science does

surprise some people. "My science background has been extremely helpful during my career," she noted. "I wanted to stay in a strong scientific environment so that I could, albeit indirectly, make a difference in the advancement of science. Being at the Lab allows me to do that."

Rakow is a resident of Benicia and has two grown children, Jamie and Jennifer. In her spare time, she enjoys traveling and sailing.

DDL

Continued from page 1

tance markers, Perlmutter's research group was surprised to discover that the expansion of the universe is not decelerating (as expected due to gravity), but accelerating. Apparently, some new, unidentified "dark energy" that pervades all space is accelerating the expansion.

How can we explore the properties of this mysterious dark energy? A new generation of projects is now starting to collect data with the aim of making a much more precise and accurate measurement of the universe's expansion history. These measurements, which primarily use supernovae as "calibrated candles," are still the most direct way to constrain the properties of dark energy.



Saul Perlmutter

Perlmutter will discuss these discoveries and the ambitious scope of current projects, including the proposed Supernova Acceleration Probe (SNAP)/Joint Dark Energy Mission space telescope.

Perlmutter is a professor in UC Berkeley's Department of Physics and a senior scientist at the Lawrence Berkeley National Laboratory. He is the leader of the Supernova Cosmology Project, an international collaboration of research teams from seven countries, and also leader of the proposed SNAP space telescope satellite project. He received a bachelor's degree from Harvard in 1981 and a Ph.D. in physics from UC

Berkeley in 1986.

Perlmutter is the author of more than 100 papers in the fields of physics, astrophysics and

cosmology, in which he has addressed such topics as the cosmological constant, dark energy, supernovae, pulsars, gravitational lenses, massive compact halo objects and advanced detector systems for astrophysics. He has written numerous articles for both academic and popular publications, is a frequent invited lecturer and author, and has appeared in PBS and BBC cosmology documentaries.

Perlmutter has been honored by the American Association for the Advancement of Science, receiving *Science* magazine's "1998 Breakthrough of the Year" Award for measurements indicating an accelerating universe. He is an elected member of the National Academy of Sciences, and has received the E.O. Lawrence Award in physics, as well as the Henri Chretien Award from the American Astronomical Society.

The lecture will be rebroadcast on Lab Channel 2 on Thursday, May 26, at 10 a.m., noon, 2, 4, and 8 p.m., and on Friday, May 27, at 4 a.m.

For further information, go to <http://www.physics.berkeley.edu/research/faculty/perlmutter.html> or <http://supernova.lbl.gov/~saul/home.html>

TITAN

Continued from page 1

dance of argon exceeds that of methane. Methane, the main component in natural gas, plays a key role in the makeup of atmospheric conditions on Titan.

The organic chemistry that occurs in Titan's atmosphere is an analog of the processes that may have been present in the early terrestrial atmosphere.

The research appears in the today's edition of the journal *Science*.

Using an infrared spectrometer on the Cassini-Huygens spacecraft, researchers have measured the temperature, winds and chemical composition of Titan.

Edward Wishnow of the Laboratory participated in the research by measuring the spectrum of methane in the laboratory at temperatures and densities similar to Titan's — about 113 Kelvin (-256 degrees Fahrenheit) and about one atmosphere pressure. The measurements were performed with a unique spectrometer and cryogenic gas absorption cell in collaboration with H. Gush and I. Ozier at the University of British Columbia, and G. Orton at the Jet Propulsion Lab.

"Titan's spectrum shows sharp emission lines that arise due to methane in the strato-



CRAIG ATTEBERY/ESA/NASA

An artist's concept of the Huygens probe's descent onto Titan.

sphere that is warmer than the underlying denser atmospheric layers," Wishnow said. The correspondence between the lab and Titan spectra is obvious and the strength of the laboratory lines is used to ascertain the abundance of methane in Titan's upper atmosphere, he said.

The Cassini Composite Infrared Spec-

trometer (CIRS) is an instrument that measures the intensity of far-infrared radiation, light with wavelengths between those of radar and near-infrared light. These wavelengths are associated with radiation emission by the constituent gases of Titan's atmosphere.

Other researchers on the project discovered that Titan exhibits seasonal changes in its stratospheric temperatures and winds that are similar to Earth's.

"Part of the exhilaration of our scientific exploration comes from understanding how Titan is similar to Earth as well as how it differs," said CIRS principal investigator F. Michael Flasar of NASA/Goddard Space Flight Center. "The CIRS observations of Titan's stratosphere indicate that its winter (northern) pole has many properties in common with Earth's: cold temperatures, strong circumpolar winds and

anomalous concentrations of several compounds (on Titan, organic molecules) that are reminiscent of conditions within the winter polar regions on Earth, the so-called ozone holes. In both cases the essential ingredient is the strong winds, which isolate the polar air and inhibit mixing with that at lower latitudes."

KUCKUCK

Continued from page 1

weapons testing and treaty verification technologies, as interim director of Los Alamos National Laboratory. Pete Nanos will step down to take a new position with the U.S. Department of Defense.

Kuckuck will take office Monday (May 16) and is expected to serve through the remainder of the University's current contract to manage Los Alamos.

"I look forward to working with Bob Kuckuck at Los Alamos as part of the UC team," Director Michael Anastasio said. "I have known Bob for many years and in that time he has excelled at every assignment he has been given. He has experience in every facet of running a laboratory — whether it is science and technology or operations and management. His experience at UC, NNSA and LLNL make him a natural choice to lead Los Alamos as interim director."

A nuclear physicist who has taken on a variety of leadership responsibilities up to the highest levels of laboratory management, Kuckuck has extensive experience in the nuclear weapons complex, having worked at the Laboratory and the Department of Energy's NNSA.

"Bob Kuckuck has the knowledge and expertise to provide strong leadership for Los Alamos," UC President Robert Dynes said. "His depth of familiarity with the laboratory, the university and the missions of institutions, as well as the National Nuclear Security Administration and the Department of Energy, makes him an excellent choice for this position. Bob's expertise in nuclear weapons and his fundamental understanding of how strong management and science must coexist in a national laboratory will be invaluable to the ongoing and important work of the lab."

In his more than 35-year career at Livermore, Kuckuck held a number of management positions, including deputy director of the Laboratory from 1994 to 2001. Additional positions included assistant program leader, solid state lasers; assistant associate director for nuclear testing; program leader for

treaty verification research; deputy division leader (diagnostics physics); deputy associate director for nuclear design; and associate director for nuclear test and experimental science. He began his career at Lawrence Livermore as an experimental physicist.

From 1992 to 1994, Kuckuck was special assistant to UC for laboratory management. From 2001 to 2002, Kuckuck was NNSA deputy administrator responsible for internal operations and organization restructuring. After leaving NNSA in December 2002, Kuckuck was appointed senior adviser in the Office of Laboratory Management working on laboratory oversight issues.

"I am both honored and pleased to serve as director of Los Alamos National Laboratory," Kuckuck said. "The scientific and programmatic achievements of Los Alamos under UC management have been extraordinary. I look forward to working with these dedicated and capable people, many of whom have been my colleagues over the years."

As interim director of LANL, Kuckuck will earn \$355,800 annually and oversee an operation with a \$2.2 billion budget and a workforce of approximately 13,500. The director's salary, like that of all other UC employees at the laboratory, is paid from funds derived from the federal DOE contract. No general funds from the state of California are used to pay the director's salary.

Nanos served as director of Los Alamos, first as interim and then as permanent director, for more than two years beginning in January 2003. He is stepping down to take a new position at the Defense Threat Reduction Agency for the Department of Defense in Washington D.C.

During his tenure, Nanos led LANL through what some, inside and outside the lab, consider an unprecedented period of change, uncertainty and challenge.



Bob Kuckuck

"I also wish to congratulate Pete Nanos on the work he did at LANL," Anastasio said. "Pete came in during extraordinary times, but through his leadership he has been able to move the lab forward to implement the necessary changes for the future."

In Nanos' two years as director, the laboratory completely revamped its business models and procurement systems, overhauled its overhead rates, reducing costs associated with scientific research; reshaped the lab's organizational and management structure to improve performance and productivity, reestablished the nation's ability to manufacture

PITs, took aggressive steps in support of reinvigorating basic and applied scientific research in all areas, restarted waste shipments to the Waste Isolation Pilot Plant (WIPP) in southern New Mexico, completed a comprehensive waste management agreement with the New Mexico Environmental Department, re-energized the lab's presence and partnerships with surrounding communities and Pueblo governments, restructured and strengthened the lab's security and emergency response posture, enhanced its involvement in the nation's scientific and foreign assistance programs abroad, and re-engineered its data sharing and information management systems.

As part of ongoing competition preparations, the University of California is conducting a thorough review of potential senior management team members. The university is looking at a full range of candidates, including the incumbents. Only after the final request for proposals has been released by DOE will the university know DOE's specifications for the senior management team.

LANL CONTRACT

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and industrial operations lineup to LANL.

"This agreement brings together the expertise of the largest public research institution in the world with a seasoned team of contractors, led by Bechtel, to put in place a strong management and operations team that will ensure the continued excellence of the laboratory's scientific mission," UC President Robert Dynes said. "This new management team builds on the strengths of each organization and applies them to the important national security work at the lab."

In a letter to Livermore employees, Dynes said the agreement puts UC in "the best possible position for a successful bid for continued management of this great lab (LANL). A UC-Bechtel partnership allows the excellence in science and technology to continue while management and operations are enhanced and strengthened."

While the UC-Bechtel agreement announced Wednesday does not have an immediate direct impact on LLNL, Dynes acknowledged LLNL employees "are watching the university's actions closely as the management competition" for the Lab draws closer.

In late March, UC announced it would also partner with a consortium of New Mexico institutions to form the Advanced Studies Institute at LANL. These institutions include the University of New Mexico, New Mexico State University and New Mexico Institute for Mining and Technology. The agreement with these institutions solidifies the role of New Mexico universities as part of a bid to compete for the LANL contract.

While UC continues to prepare for the competition, the University's final decision regarding participation will be made by the UC Board of Regents following the release of the final request for proposals.

"This excellent team combines the superior scientific and technological expertise of the University of

California with the considerable project management, operations, safety and security skills of these leading industrial partners," Board of Regents' Chairman Gerald Parsky said. "I know I speak for the entire board when I say that we take this decision very seriously and will weigh a variety of factors in the process, including the best interest of the University, the nation, the laboratory and our employees. We will carefully review the Department of Energy's final request for proposals to ensure that science and technology remains as the foundation of the laboratory's work. This guiding principle is critical to Los Alamos and to the nation. It is also one of the university's strengths and compatible with its mission of research and public service."

The contract to manage LANL expires Sept. 30, 2005. In April 2003, then-U.S. Secretary of Energy Spencer Abraham announced that DOE would compete the management and operations contract for LANL. In December 2004, the DOE's National Nuclear Security Administration released the draft request for proposals (RFP). The draft RFP was amended on Feb. 18 and April 5. A final RFP is expected in the near future. The deadline for submission of bids is expected to be 90 days after the release of the final RFP. According to DOE, a source evaluation board made up of DOE technical and business experts will review the proposals submitted and provide recommendations to the source selection official.

Bechtel National provides world-class program and project management, facilities management, safety and environmental management, and robust government business systems. As premier managers of complex, high-consequence nuclear and national security operations, BWXT and Washington Group will ensure safe and secure, effective and efficient nuclear facilities operations.

"Through this new management structure, Bechtel National, with its substantial experience throughout the DOE and NNSA complex, will implement the necessary changes, policies and

procedures to support world-class science at LANL," Bechtel National President Thomas Hash said. "Operations run in a safe and secure manner will ensure that the premier science and technology that has come from this lab for the past 60 years will continue."



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